sharing obligation, characterizing the result as a "pure price cap" plan.²³⁸ On the downside, earnings deficiencies are protected both by explicit provisions of the plans, in which the BOC may either seek emergency rate relief or opt out of the incentive plan altogether.

It is significant to note that through aggressive use of both RORR and more recently incentive regulation devices, BOCs have been extremely successful, since divestiture, in maintaining consistently high levels of earnings. Indeed, earnings from regulated telephone operations have enabled the RBHCs to finance all BOC investments and virtually all non-BOC business ventures, with little or no need to raise capital from external sources.

7.2 Extensive capital and liquidity to fund BOC responses to competition

Almost from their birth in 1984, the RBHCs have demonstrated consistently strong financial performance and cash flow from their *regulated* local exchange monopoly services. This highly dependable revenue stream has allowed the BOCs not only to continue to fund significant improvements in their own local exchange service networks, but also to become engaged in the pursuit of a broad range of business activities outside the scope of local telephone service operations. In recent months, there has been a flurry of RBHC activity directed at large-scale investment in, and corporate consolidation with, cable television companies, and it appears likely that in the future the regional Bells will be able to devote at least as much if not more of their corporate attention and resources away from the core local voice telephone business. While these patterns can be found across all seven regional companies, we focus here specifically on Pacific Telesis and Southwestern Bell as illustrative examples.

The regulated Bell Operating Companies represent the dominant share of each RBHC's revenues, assets, and earnings. Thus, while technically "separated" from the regulated BOCs, the tremendous size of the overall BOC cash flow has allowed the other RBHC ventures to have in fact derived the overwhelming majority of their capital from funds generated at the BOC level. Indeed, an examination of the depreciation, earnings, dividend payments, and reinvestment practices of the Regional Bells and their various regulated and non-regulated subsidiaries reveals substantial ability on the part of the BOCs to divert capital away from the regulated entities and into the non-regulated businesses. This

^{238.} See Delaware General Assembly Senate Bill 115 (subsequently enacted as Title 26, Subchapter VIIA of the Delaware Code), Petition of the Bell Telephone Company of Pennsylvania for an Alternative Form of Regulation, PA PUC Docket No. P-00930715 (October 1, 1993), and Application of GTE California Incorporated (U 1002 C) for Review of the Operations of the Incentive-Based Regulatory Framework Adopted in D.89-10-031, California PUC A.92-05-002 (April 30, 1992), at 7.



demonstrated ability to fund non-BOC businesses indicates the presence of extensive capital and liquidity with which the BOCs will be able to fund responses to any viable competitive threats. These responses could range from potentially large, targeted reductions in prices of competitively-impacted services to outright purchases of the BOCs' competitors. Table 7.1 below demonstrates the total level of this investment for all RBHCs, by year, for the 1984-92 period.

TABLE 7.1										
RBHC INVESTMENTS IN NON-BOC BUSINESSES (\$000s) 1984-92										
RBHC	Dividends From BOCs	Dividends Paid To Public Shareholders	BOC Dividends Retained By RBHC	RBHC Investment in Non-BOC Business	% of Non-B Investm Finan- by B Dividends a Disinvestm					
Ameritech Bell Atlantic BellSouth NYNEX Pacific Telesis Southwestern Bell US West Totals	9,120,772 8,994,274 11,440,484 8,700,411 9,396,116 8,364,916 8,666,668 64,683,642	6,800,500 7,374,680 9,606,005 6,933,375 6,554,040 6,041,700 5,622,390 48,932,690	2,320,272 1,619,594 1,834,478 1,767,036 2,842,076 2,323,216 3,044,278 15,750,951	1,587,545 2,066,055 1,660,612 2,633,664 2,970,839 2,476,313 2,389,121 15,784,148	100. 78. 100. 67. 95. 93. 100.					

An analysis of historical data highlights relationships that trace the sources of investment funds and the specific investment activities of the regional companies and their respective BOC subsidiaries. While the individual practices are not identical, certain clear patterns are common, in varying degrees, to all seven of the Regional Bell Holding Companies.

• All seven regional companies have in recent years had substantial BOC earnings available to invest not only back into the BOC asset base but also into other endeavors. Several RBHCs (Pacific Telesis, NYNEX and Southwestern Bell Corporation) actually have annual depreciation charges that have regularly exceeded the total plant acquired by the BOC in many years since the late 1980s. In other cases (e.g., Ameritech), such depreciation charges in excess of total investment levels is occurring in some (but not all) of the individual BOCs (Ohio Bell, Indiana Bell, and Wisconsin Bell), while net investment continues in the others (Illinois Bell and Michigan Bell).

The internally generated depreciation funds of Pacific Bell and Southwestern Bell have exceeded net investment in new plant since 1987, as shown on Figure 7.1 and 7.2 below.



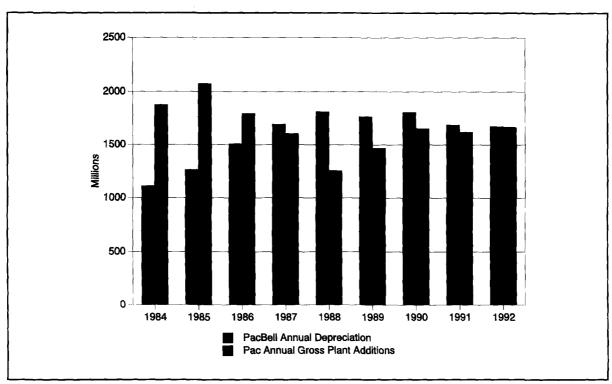


Figure 7.1. Pacific Bell investment. Comparison of annual depreciation charges with amounts spent to acquire plant.

- For most of the decade since the divestiture, the BOCs have pursued regulatory strategies designed to achieve higher depreciation rates and accelerated depreciation practices, convincing regulators that more rapid investment recovery was essential for the financing of new "modern" LEC infrastructure. However, our analysis now reveals that the cash flow generated by the increased depreciation charges that have been allowed by regulators has not been used entirely to acquire new BOC plant, but has instead been handed over to the parent for its use in investing in non-BOC businesses.
- The Bell Atlantic BOCs are the only operating companies that are retaining consequential portions of their earnings at the BOC level for reinvestment in the BOC networks (and this is likely to change with BA's plan to merge with cable television operator, Tele-Communications, Inc. (TCI)²³⁹). The BOC subsidiaries of the other six RBHCs are transferring nearly all of their equity earnings to the parent in the form of a dividend payment. Figure 7.3 compares the cumulative BOC net income with BOC dividends paid to the parent during the period of 1987-92. In recent years, some

^{239.} For example, Bell Atlantic has recently announced plans to upgrade TCI's systems to "full-service" multimedia capability after their agreement to merge is completed. *Telecommunications Reports*, "Bell Atlantic Picks Oracle's Video Server Technology," January 17, 1994, at 34.



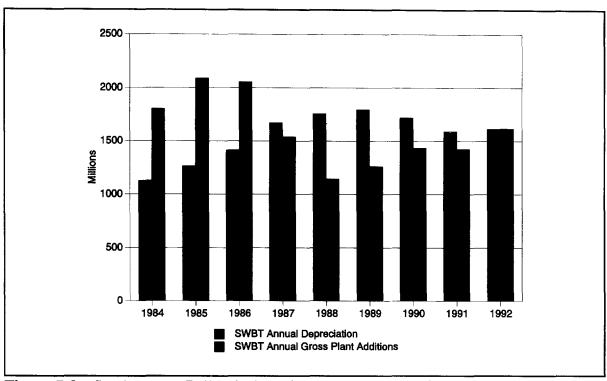


Figure 7.2. Southwestern Bell Telephone investment. Comparison of annual depreciation charges with amounts spent to acquire plant.

BOCs (e.g., Southwestern Bell, Pacific Bell, New York Telephone) have paid dividends to their parent that have actually exceeded the BOC's earnings. Consequently, the BOCs do not retain much — or in some cases any — of their earnings for reinvestment in their LEC infrastructure, and there is no evidence of an infusion of funds for such purposes coming from the parent.

• The parent RBHCs do, however, retain a substantial portion of the BOC dividend payment they receive, as shown on Figure 7.4. Generally, only about two-thirds to three-quarters of the BOC dividend is distributed to the parent RBHC's public shareholders; the balance of the undistributed BOC dividend is used to fund investments in non-BOC regional holding company activities. This same level of funding could quite easily be utilized to buy out competitors' networks. When viewed on a consolidated basis, virtually all of each RBHC's retained earnings come from earnings at the BOC level, yet virtually none of those retained earnings are being reinvested in the BOCs.



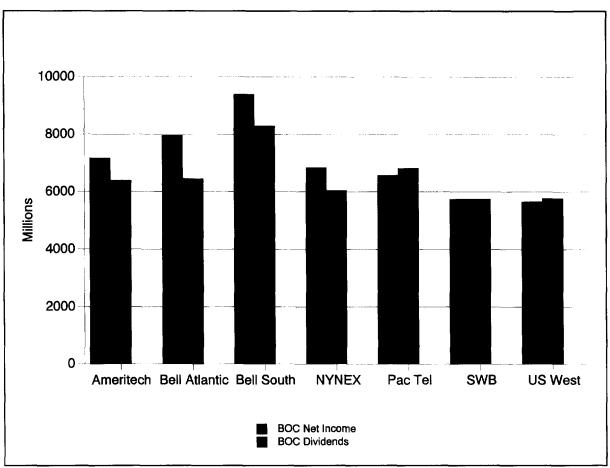


Figure 7.3. Comparisons of BOC Earnings with BOC Dividend Payment to Parent, 1987-1992

7.3 LEC depreciation of rate base assets provides a powerful competitive weapon

Depreciation²⁴⁰ of rate base assets is perhaps the most powerful competitive weapon available to a dominant local exchange monopoly. Since divestiture in 1984 and through the

^{240.} Depreciation, as the term is used in accounting, is the "expiration of a plant asset's quantity of usefulness, and the recording of depreciation is a process of allocating and charging the cost of this usefulness to the accounting periods that benefit from the asset's use." Pyle, William W. and John A. White, Fundamental Accounting Principles, (Richard D. Irwin, Inc.), at 309. Practically speaking, depreciation is the reduction in the book value of an asset that can be allocated to an accounting period and deducted from accounting profits. The important point for purposes of this discussion is that depreciation is a noncash accounting expense — no dollars are paid out by the firm in connection with the expense and hence these dollars are available as a source of internal funds.



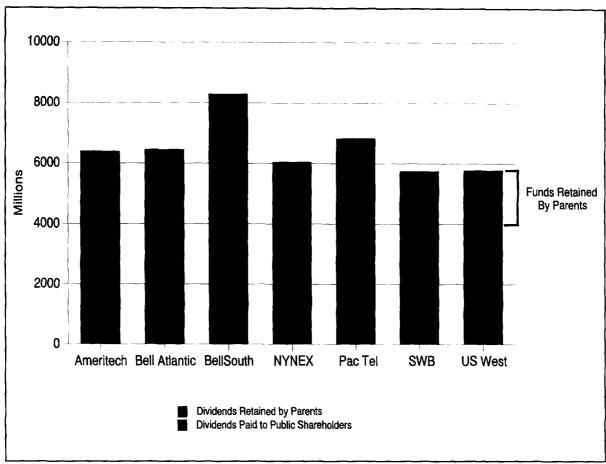


Figure 7.4. BOC Dividends Paid to Parent And Not Distributed, 1987-1992

end of 1992, the BOC components of the seven RBHCs have acquired some \$126.1-billion in gross new rate base plant additions. However, \$113-billion, or some 89.6%, was funded through depreciation charges taken and recovered from BOC core monopoly services ratepayers. Prospectively, annual depreciation charges are capable of funding on the order of \$15-billion or more in new BOC investment; by the end of the decade the seven RBHCs could place roughly \$100-billion of new plant in their networks without raising one cent of investor-supplied capital or requiring any investor risk. Adoption of unduly generous rate adjustment mechanisms could add even more cash flow. Rather than constituting anything close to "market-driven technology deployment," the use of massive financial resources by the RBHCs, acquired through their pervasive monopoly operations, could easily overwhelm the market, dissuade competitive investment, and consequently impose LEC technological choices upon the US economy irrespective of the efficiency or appropriateness of the BOCs' chosen path.

While the financial strength and market power of the RBHCs should be of obvious interest to the financial community, these conditions present serious and fundamental



regulatory policy implications as well. In the instant situation, the RBHCs have up to now been able to fund most, and in some cases all, of their non-BOC investments from cash flow and earnings generated at the BOC level. There is every reason to expect that in the future the RBHCs will have little difficulty deploying these same financial resources in any new market in which their entry is allowed. That the increased annual depreciation charges have not been plowed back as promised raises concern about future strategic applications of this key source of liquidity, and requires (where possible) the use of regulatory safeguards to foreclose the potential for further RBHC market domination.

Ratepayers of the BOC monopoly services are being forced to cross-subsidize nonregulated RBHC businesses now and in the future; the potential exists for them to fund the elimination of the BOCs' competitors as well. Increases in depreciation rates have not been used for the purpose of funding new public network infrastructure. earnings produced by "incentive regulation" plans, along with the cash flow generated by the higher depreciation charges, have flowed into risky and often unprofitable non-BOC ventures. As shown in Table 7.1 above, in total, the RBHCs have invested some \$15.7billion in non-BOC businesses since the birth of these companies in 1984, about the same as the net RBHC investment in BOC plant during that same period. Requests for further "depreciation flexibility" will only serve to strengthen the BOCs' ability to acquire massive stores of liquidity. If entry into adjacent markets is to be authorized, at the very least strict controls on the flow of capital from regulated businesses into adjacent markets will be essential. Controls on the flow of capital into adjacent markets must also be accompanied by increased scrutiny of BOC investment in plant and equipment that will be used jointly in the provision of basic (non-competitive) and advanced (competitive) service offerings. As detailed below, capital ostensibly being used to fund new public network infrastructure may in reality be driven by a BOC's desire to offer advanced (competitive) services. Under these circumstances, existing regulatory cost allocation processes tend to break-down, with the bulk of the costs inappropriately attributed to the BOC's basic service offerings.

7.4 Flexible pricing of "competitive" BOC services

In support of efforts to achieve increased regulatory flexibility or even outright deregulation, the BOCs frequently portray themselves as being highly constricted with respect to the prices they can charge for their regulated services. Consequently, they claim, their ability to respond to nonregulated competitors not subject to pricing limitations is seriously impaired. In reality, however, there are a number of pricing strategies that the BOCs have pursued aggressively over the last several years which have enabled (and will continue to permit) them to successfully respond to and — more to the point — to repel competitive entry. These strategies vary from outright price deregulation to a variety of forms of pricing flexibility and highly targeted rate structures.

As early as 1985, Iowa became the first state to deregulate certain Centrex and high capacity private line services.²⁴¹ Other states, including Colorado, Idaho, Maryland, Michigan, Nebraska, New Jersey, Tennessee, and Virginia have followed suit with the deregulation of one or more LEC services.²⁴² Once a service is deregulated, revenues and expenses for the service are moved below the line, and the regulatory commission relinquishes all control over the prices the telephone company can charge for the service. In a number of states, including California, Mississippi, Nevada, Utah, and West Virginia, LECs have been authorized to offer one or more services on a detariffed basis.²⁴³ Detariffing is similar to (and often confused with) deregulation in that it enables an LEC to have total control over the prices it can charge for a service and removes from the LEC any obligation to file tariffs. The only difference is that revenues and expenses for the detariffed service are kept above the line with other price-regulated services.

More recently, LECs have proposed regulatory schemes that would deregulate rates for all services (subject only to an overall price cap scheme, and perhaps excluding basic residential services) offered at the "retail" level to end users. Head For deregulated services, LECs are able to charge prices at whatever level they deem necessary to undercut prices charged by competitors. While the FCC does require the LECs to allocate a certain portion of their investments and expenses to deregulated services, there is no requirement that prices for deregulated services have to be set to recover allocated costs. LECs are well-positioned to absorb any "paper losses" (i.e., the nominal shortfall of revenues vs. allocated costs) for deregulated services given the hefty cash flows that will continue to be generated from depreciation charges and price cap regulation as discussed above.

More common than outright service deregulation and detariffing are flexible pricing schemes under which BOCs are permitted to decrease (or increase) rates for selected services without specific a priori approval from the regulatory authority. Unlike the case for detariffed services, LECs are required to file tariffs for most forms of flexibly-priced services. Unlike the case for deregulated services, revenues and costs for flexibly-priced regulated services remain above the line and are therefore part of a BOC's regulated rate base and revenue requirement. However, as discussed above, depreciation charges, price cap rate adjustments, and the ability to selectively raise non-competitive flexibly-priced service rates provide BOCs with ample cash flow, permitting them to absorb substantial

^{244.} See, e.g., Petition of Rochester Telephone Corporation for Approval of Proposed Restructuring Plan (Rochester Open Market Plan), State of New York Public Service Commission, Case No. 93-C-0103, February 3, 1993.



^{241.} Iowa State Commerce Commission, Joint Plan for Deregulation, Docket RPU-84-8, April 1, 1985.

^{242.} See Appendix 7b.

^{243.} See Appendix 7b.

price decreases for other flexibly-priced services subject to actual competition, as well as any potential revenue imputation to basic services that regulators may impose.²⁴⁵

The pricing flexibility granted BOCs over the past several years has come in a variety of forms. The most common forms of flexible pricing (other than detariffing, which can be viewed as the most "flexible" of all flexible pricing schemes) include Individual Case Basis (ICB) contracts, banded rates, flexible rates with price floors set at incremental service cost as calculated by the LEC, and weighted average pricing within a price cap "basket." The table below provides a description of each of these common forms of flexible pricing. LECs in no less than thirty states enjoy one or more of these types of pricing flexibility for one or more of their services. Appendix 7b provides a summary, by state, of the particular application of flexible pricing permitted in each state.

What all of these different forms of flexible pricing have in common is that they permit the BOC to readily respond to competitive threats by substantially lowering prices in targeted service markets, while keeping rates high in other highly-protected markets. While it may be reasonable for state regulatory commissions to allow BOCs flexibility to decrease the rate for a service in response to a credible competitive threat for that service, the BOCs have been able to implement flexible pricing plans in such a manner as to give them an unfair advantage relative to actual and potential market entrants.

Manipulation of incremental cost study results

As is evident from these descriptions, most forms of flexible pricing require the BOC to price in excess of incremental cost. This requirement ostensibly prevents the BOC from charging predatory prices or subsidizing competitive services. However, incremental costs can be readily manipulated to satisfy nearly any particular pricing objective, usually by simply varying the size of the "increment" being examined or the time frame over which certain costs are considered to be "fixed." As a result, the incremental cost constraint is not particularly effective in preventing BOCs from unfairly underpricing their services visavis the competition and relative to their underlying *economic* costs. There are a number of specific devices by which incremental costs can be manipulated, but perhaps the most common methods of maintaining artificially low cost floors is by excluding investment and other expenses on grounds that such costs are either already "sunk" and hence not reusable

^{245.} For example, in the District of Columbia, C&P Telephone Company was required to have its shareholders absorb any losses resulting from the pricing of services below their appropriate economic costs as determined by the District of Columbia Public Service Commission (DCPSC), as a condition for flexible pricing authority for Centrex services. DCPSC Formal Case No. 828, Phase II, Order No. 8756, May 20, 1987, at 106. Since this policy was implemented, the DCPSC has ordered revenue imputations in connection with flexibly-priced Centrex services in each of the last two C&P Telephone general rate cases. DCPSC Formal Case No. 850, Order No. 9927, January 27, 1992, at 90; DCPSC Formal Case No. 926, Order No. 10353, December 21, 1993, at 132.



Common Forms of Flexible Pricing Enjoyed by LECs

- Individual Case Basis (ICB) contracts: Customer-specific tariff offerings tailored to the
 customer's unique service, cost, and price requirements. Typical application is for large
 Centrex users. In many instances, LECs are required to price ICB rates in excess of
 incremental costs. There is, however, no obligation imposed on LECs to offer ICB
 contracts to any customer who requests one; as such, this device can be utilized to
 target and to favor those customers for whom actual competitive alternatives exist.
- Banded rates: Banded rates allow the LEC to price a service within a band defined by both minimum (or floor) and maximum (or ceiling) rates. The minimum rate level is typically set at the incremental cost of the service, although in most cases the determination of "incremental cost" for this purpose is made by the LEC itself. The maximum rate level is sometimes defined by the existing rate, but may be set at a much higher "market" level. The maximum rate may also be defined annually as a set percentage increase over existing rates. In some cases, regulators will allow only downward pricing flexibility, perhaps recognizing the possibility that some "flexibly-priced" services may not always confront real competition.
- Flexible rates with price floors set at LEC-calculated incremental service cost: One
 common variant of banded rates is a form of flexible pricing that establishes only a
 minimum rate for the BOC service, defined by a "price floor." LECs are thus given the
 authority to increase or decrease a service rate to any level as long as that rate is in
 excess of the price floor. The price floor is generally set at the incremental service cost
 as calculated by the LEC.
- Weighted average pricing within price cap "baskets": A common feature of certain price cap-type incentive regulation plans is the ability of the LEC to increase or decrease a service rate to any level (usually within certain fairly broad limits) so long as the weighted average rate of all services within a designated "basket" of services do not exceed the change allowed by the price cap formula. Thus, if relatively competitive and noncompetitive services happen to share the same "basket," the BOC can easily satisfy the price cap constraint while still targeting individual service rate changes with impunity.

elsewhere in the network, or are "common" costs that do not vary with output of the service in question. It is true that economic theory would suggest that costs pertaining to irrevocable economic decisions and costs that would be incurred regardless of whether the service in question was provided by the BOC are not to be considered incremental costs. However, the BOCs distort economic theory by excluding from the calculus of incremental costs those "sunk" costs where the decision to "sink" the investment in the first place was motivated in whole or in part by the service under examination as well as "common" costs which in reality do vary with service output.



Concerns over potential manipulation of incremental costs have been raised in connection with the provision of Individual Case Basis (ICB) contracts for Centrex services. In particular, a BOC may decide to deploy a digital switch so that it can offer a digital Centrex offering to a customer that might otherwise purchase a PBX. Yet, although the reason for upgrading the central office was motivated by competitive reasons, the BOC may argue, once the switch installation has taken place and investment costs "sunk," that the vast majority of the costs of the switch installation should be recovered from monopoly users of the BOC's common network infrastructure. Moreover, as we have noted earlier, FCC and most state cost allocation rules, to they extent they are applicable in this situation, would actually support that after-the-fact type of treatment. In its multi-year investigation of C&P Telephone's Centrex ICB contracts, the District of Columbia Public Service Commission (DCPSC) observed

... a general pattern in which C&P is able to reduce the incremental investment for ICBs by assuming zero reusability for existing network facilities available to provide ICB service, but 100% reusability for ICB facilities subsequently available for general network use.²⁴⁶

The DCPSC also observed that "ICB revenues cover only a very small portion of the direct costs that are incurred by C&P in providing ICB Centrex service." While the DCPSC has instituted a policy of assigning revenue responsibility for Centrex losses to the Centrex category as a means of protecting non-Centrex ratepayers, C&P is nevertheless able to use this pricing strategy as a means of gaining unfair competitive advantage in the PBX/Centrex market.

Apparent manipulation of incremental costs is also evident in BOC applications before the FCC for § 214 authorization to construct facilities for the provision of "Video Dial Tone" ("VDT") service. In its two VDT applications, ²⁴⁸ New Jersey Bell identified

^{248.} In the Matter of the Application of: New Jersey Bell Telephone Company, For authority to pursuant to Section 214 of the Communications Act of 1934, as amended, to construct, operate, own, and maintain advanced fiber optic facilities and equipment to provide video dial tone service within a geographically defined area in the municipalities of Florham Park Borough, Madison Borough, and Chatham Borough, New Jersey, File No. W-P-C-6838, November 16 1992. In the Matter of the Application of: New Jersey Bell Telephone Company, For authority to pursuant to Section 214 of the Communications Act of 1934, as amended, to construct, operate, own, and maintain advanced fiber optic facilities and equipment to provide video dial tone service within a geographically defined area in Dover Township, Ocean County, New Jersey, File No. W-P-C-6840, December 15, 1992.



^{246.} District of Columbia Public Service Commission, Formal Case No. 828, Phase II, Order No. 10215, at 30.

^{247.} Id. at 33 (citing DC PSC Staff Comments filed June 5, 1991 at 3-4).

extremely low incremental costs of providing this new video service.²⁴⁹ The Company argues that the bulk of the costs involved in providing broadband service are being incurred in connection with the underlying upgrade of the basic local telephone network authorized by the state regulatory authority in conjunction with implementation of an alternative regulation proceeding.²⁵⁰ However, evidence presented by New Jersey Bell in the alternative regulation proceeding before the New Jersey Board of Regulatory Commissioners and in other forums makes clear the fact that it is the BOC's desire to provide video and other enhanced services that is the basis of that Company's decision to deploy fiber facilities in particular locations at particular points in time.²⁵¹

Pacific Bell presents a similar rationale to support its four VDT applications recently filed with the FCC. Pacific is proposing to offer VDT service on an "advanced integrated broadband telecommunications network" that it asserts it will be constructing, pursuant to its November 11, 1993 announcement of a \$16-billion upgrade of its infrastructure throughout California. Pacific explains that this new network will "carry an array of services including traditional voice telephony; ISDN; video telephony; nonswitched services for both data and voice; ethernet-type transport for local area network interconnection; cellular, PCS and other wireless transport; digital audio transport; interactive services; and video dialtone services." The "advanced integrated broadband telecommunications network" employs a hybrid distribution architecture consisting of fiber optic feeder cables connected to nodes each serving approximately 480 customers. Significantly, the architecture that Pacific has adopted for this network is essentially the same as, and is thus duplicative of, the upgrades that are currently under construction by existing cable television systems. When completed, there will be two essentially identical distribution networks in place.

^{254.} Id.



^{249.} See, Affidavit of Patricia D. Kravtin, New Jersey Cable Television Association, Petition to Deny New Jersey Bell's Section 214 Application, Dover Township, January 22, 1993, at 3-8; also Affidavit of Patricia D. Kravtin at 5-7 and Affidavit of Leland L. Johnson at 3-13, New Jersey Cable Television Association, Reply to Opposition to Deny New Jersey Bell's Section 214 Application, Dover Township, February 17, 1993.

^{250.} Affidavit of Patricia D. Kravtin, New Jersey Cable Television Association, Reply to Opposition to Deny New Jersey Bell's Section 214 Application, Dover Township, February 17, 1993, at 5-7.

^{251.} Id. at 6-7.

^{252.} On December 20, 1993, Pacific Bell filed four essentially identical applications with the FCC for § 214 authorization to construct facilities for the provision of "Video Dial Tone" ("VDT") service in each of four specific areas of California: Orange County, San Francisco Bay, Los Angeles and San Diego. FCC Public Notice, No. D-730, January 12, 1994, W-P-C-6913-16.

^{253.} Application at 2.

Pacific states that the new "advanced integrated broadband telecommunications network" is justified on the basis of reduced costs of basic telephony and incremental revenues from new services (other than VDT). Specifically, Pacific claims that the capital investment per subscriber access line will be reduced by 36% relative to that for a network comprised of twisted copper pairs. If VDT capabilities are *incrementally* provided on the new network, Pacific asserts, the investment per subscriber access line will be 32% below the present cost of copper. Hence, Pacific reasons, the *incremental cost* of VDT is the *difference* between the cost of the new network with VDT.

A differential approach such as this has of course been used to estimate the incremental cost of providing those additional facilities needed to accommodate a new service overlaid on existing network resources. Even then, LECs have sought to categorize as much of these costs as possible into the "common cost" category. Thus, when Pacific proposed "Caller ID" service several years ago, it considered the costs of upgrading its network to Common Channel Signalling System 7 (SS7) — absolutely essential for Caller ID — to be a "general network upgrade" that would have happened anyway, thereby avoiding the need to charge any of these costs to (or recover them from) Caller ID revenues. 258

In this latest use of the differential cost approach, Pacific seeks to portray the "common" plant in this case — the baseline "advanced integrated broadband telecommunications network" that has not even been built — as a "fixed cost" whose level is unaffected by Pacific's decision to offer VDT service. Despite an architecture that has clearly been motivated by video and that would be unnecessary as a replacement for existing copper plant in order for Pacific to continue to offer traditional voice telephone service, Pacific's VDT applications are premised on the theory that the specific VDT service should only be responsible for the bare minimum differential cost of this one particular use of the network. On this basis, Pacific understates the "variable cost" of VDT by placing most of the costs in the "fixed" category. Using Pacific's methodology, the investment cost for Video Dial Tone is in the range of \$134 per home passed, a small fraction of the total cost of deploying the overall fiber/coax network. We have estimated the capital cost per subscriber as confronted by a CATV operator in order to furnish basic telephone service at \$745 (see Table 3.3), some six times the cost that Pacific has projected for its entry into

^{258.} California Public Utility Commission, Approval of Custom-Calling Features, D.92-06-065, June 17, 1992, at 59.



^{255.} Application at 25. No financial data to support this statement was, however, provided with these Applications.

^{256.} Harris at 8.

^{257.} Id.

cable. On the basis of Pacific's calculation, one could well conclude that LECs will be far more successful in competing for video services than will cable companies in entering the voice telephone service business.²⁵⁹

Flexible pricing for services not yet confronting effective competition

In addition to the opportunity to manipulate incremental costs, BOCs can also gain an unfair advantage relative to actual and potential market entrants by obtaining flexible pricing authority for services that do not yet confront effective competition. Obviously a BOC is in the best possible situation with respect to repelling entry if it is able to significantly cut prices for a service well in advance of an actual competitive threat. This is of course not the proper intent of flexible pricing authority for the BOC, which is to allow the dominant firm to decrease prices in order to prevent competing firms from unfairly cream-skimming market share away from the dominant BOC. Moreover, to the extent BOCs obtain pricing flexibility for services that confront relatively price-inelastic demand in highly monopolistic markets, they are in a position to generate substantial cash flow which can be used both for funding a predatory response by BOCs to competitive entry in other BOC markets or subsidizing BOC entry into new markets.

BOCs have successfully obtained opportunities to seek flexible pricing authority for services not yet confronting effective competitive thanks to insufficient or vaguely-defined competitive criteria that are becoming increasingly common in BOC-sponsored telecommunications "reform" legislation. For example, on the subject of competitive criteria, the Illinois Public Utilities Act states only that:

A service shall be classified as competitive only if, and only to the extent that, for some identifiable class or group of customers in an exchange, group of exchanges, or some other clearly defined geographical area, such service, or its functional equivalent, or a substitute service, is reasonably available from more than one provider, whether or not any such provider is a telecommunications carrier subject to regulation under this Act.²⁶⁰

^{260.} Illinois Public Utilities Act, Section 13.502(b), at 136, emphasis supplied.



^{259.} The manner in which capital costs for CATV telephony are calculated in Chapter 3 is distinctly different from the method used by Pacific in its VDT Applications. We have undertaken to estimate the incremental costs of telephony using the *existing* cable infrastructure as a baseline. By contrast, Pacific has posited a substantially expanded baseline — one that does not now exist — and has estimated its VDT costs as a small add-on to that larger infrastructure upgrade.

Noticeably lacking from the Illinois Act is any type of *market test or other quantitative standard* by which a service is determined to be competitive. Instead, the only criterion seems to be of the "mere existence" variety which requires the identification of only one alternative supplier of undefined significance and availability. What constitutes "functional equivalency" or "substitutability" with respect to an alternative service are highly subjective questions about which neither the Act, nor the price cap plan filed by Illinois Bell pursuant to the Act, provides any guidance. Unlike the case with rate of return regulation, under a price cap plan such as the one sponsored by Illinois Bell and an increasingly large number of other BOCs (see Appendix 7b), there is no overall earnings constraint.²⁶¹ Consequently, revenues obtained through flexible pricing schemes used to effect large rate increases for improperly classified services (due to the lack of actual competition) will accrue solely to the BOC's owners,²⁶² generating cash flow which can be used for strategic and potentially anticompetitive purposes.

Unlimited price changes for non-competitive services

BOCs have other opportunities to manipulate flexible pricing under price cap regulation. They have been successful in crafting plans in which pricing rules are applied in the aggregate to a broad set of services within a "basket," and there are no limits on price decreases or increases for individual service elements. In this situation, BOCs are able to implement both substantial rate decreases for services they perceive to be subject to a competitive threat and essentially unlimited rate increases for other non-competitive services within the basket, yet stay within the guidelines of the price cap formula.

As mentioned above, BOCs and other LECs have begun to propose new regulatory schemes to deregulate rates for *all* services, including local exchange services, offered at the "retail" level to end users as distinct from the "wholesale" basic network service elements. These new regulatory schemes, contrary to popular views of these plans, would provide the local exchange monopolies with enhanced opportunities to implement pricing strategies to repel competitive entry. For example, a recent proposal submitted by

^{262.} It is true in some cases LECs are required to share some portion of earnings above some cap with ratepayers, but generally such sharing requirements are small in comparison to the earnings limits imposed under traditional rate of return regulation. As noted above (op. cit., footnote 261) the BOC will have an incentive to minimize the amount of shareable earnings.



^{261.} It is argued that price-cap regulation, which eliminates an overall earnings constraint and replaces cost-based regulation with price-based regulation, will lessen the LEC's incentive to cross-subsidize. There are a number of fallacies with this argument. First, even under price cap regulation, LECs are typically required to price a competitive service above incremental costs and therefore continue to have the incentive to underassign costs to competitive services (overassign costs to basic services) so they can justify a lower price for their competitive service offerings. Also to the extent earnings sharings provisions exist for basic service revenues, the LEC will have the incentive to overallocate costs to basic services to lower shareable earnings.

Rochester Telephone Corporation (RTC), an independent (non-BOC) local carrier, to the New York Public Service Commission²⁶³ would split RTC into a wholesale supplier of network services ("R-Net") and a retail provider ("R-Com"). As contemplated by the RTC plan, the underlying wholesale network services would be provided by R-Net on a bundled basis in a form that is substantially identical to that which is being offered by RTC today. As proposed by RTC, R-Net would provide the local subscriber line (or "link"), the central office switching termination (the "port"), and local switched network usage.

This bundled strategy allows RTC several opportunities to repel competition. First, R-Net gets to control the split between "wholesale" and "retail" prices, and hence the "retail" "margin" against which non-affiliated resellers must compete. R-Net will continue to offer the underlying bundled flat-rate residential service, thus severely constraining the development of facilities-based competition. Competitors of R-Com would be required to purchase the entire bundled link/port/usage arrangement as a package, and would not be permitted to offer a service package different from the bundled residential flat-rate service offered by R-Com if they want to appear on a carrier selection ballot. Using the pricing flexibility requested in the RTC proposal, R-Net could subsidize basic residential flat-rate service by raising rates for monopoly non-residential services and features, and in doing so, make entry of competing network services more difficult. Additionally, RTC proposes to transfer its highly-profitable Yellow Pages operations to R-Com. The revenue stream from Yellow Pages would thus provide R-Com with an unfair and enormous advantage over its competitors in the retail business.

7.5 Roadblocks to the establishment of an open, competitive marketplace

Initiatives aimed at creating a legal and regulatory environment more conducive to competition in the telecommunications industry will have a profound influence upon the viability of competitive entry into traditional BOC markets and upon the extent of BOC entry into and dominance of markets from which they may presently be excluded. These changes encompass a multitude of potential actions by regulators, legislators, and the judiciary at both the state and federal levels, including the removal of legal barriers to entry, adoption of policies for interconnection, approval of relaxed forms of regulation and deregulation of specific industry segments, passage of legislative mandates for competition and/or network modernization, the removal of remaining line of business restrictions for the RBOCs, and the removal of the telco/cable cross-ownership restriction. Some of these approaches will undoubtedly be more effective than others in achieving the larger public policy objective. Indeed, several "reforms" being advanced by the BOCs in particular may

^{263.} Rochester Telephone Corporation, "Open Market Plan," New York Public Service Commission Case 93-C-0103, filed February 3, 1993.



be distinctly counterproductive to the establishment of an open, competitive, innovative and efficient telecommunications marketplace.

The key source of tension remains tied to long-standing behavior patterns of the BOCs themselves. Over the past twenty-five years, federal and state regulators as well as the courts have sought to constrain potential anticompetitive behavior by the BOCs. discussed in Chapter Two, requirements for interconnection of customer-provided equipment broke the long-standing BOC monopoly in this market segment; requirements for equal access by interexchange carriers to BOC local transport and distribution networks led to substantive competition in the long distance marketplace. But the BOCs never accepted these policy changes willingly or cooperatively, and in each instance were successful in extending the time span from policy adoption to ultimate implementation for a decade or more. Numerous other regulatory initiatives, some of which were adopted nearly a decade ago, have yet to be meaningfully implemented. "Open Network Architecture," a "safeguard" that materially influenced the FCC's decision in Computer Inquiry III²⁶⁴ to eliminate "separate subsidiary" requirements for non-regulated "enhanced" services, is not even close to reality, and indeed the pace of movement by the BOCs toward an "intelligent network" seems to be outrunning the speed with which even pedestrian forms of ONA features are being offered. Efforts by Competitive Access Providers (CAPs), enhanced services providers, and others to co-locate equipment and effect interconnections in BOC central offices have been underway for nearly as long as ONA, and are still far from being realized.²⁶⁵

That basic pattern of resistance and delay has not been altered even by the break-up of the Bell System, particularly where acceptance of a pro-competitive policy program would impinge directly upon market segments currently dominated by the BOCs. Current efforts by the BOCs to eradicate the line of business constraints adopted in the MFJ, absent effective and sustainable local service competition, will thus serve only to expand BOC incentives to pursue strategies and tactics such as discussed in this chapter and elsewhere in this study, and to invigorate their efforts to resist substantive change.



^{264.} Computer Inquiry III, Amendment to Sections 64.702 of the Commission's Rules and Regulations, CC Docket No. 85-229.

^{265.} See Section 1.3 supra.

Appendix 7a LOCAL EXCHANGE CARRIER OPERATING STATISTICS

CUSTOMER LINES (in Thousands)											
RBHC	<u>1988</u>	1989	1990	<u>1991</u>							
Ameritech	15,469	15,899	16,278	16,584							
Bell Atlantic	16,541	17,056	17,484	17,750							
BellSouth	16,407	17,000	17,500	18,100							
NYNEX	14,851	14,961	15,303	15,410							
Pacific Telesis	13,093	13,622	14,112	14,300							
Southwestern Bell	11,340	11,759	12,105	12,398							
US West	<u>11,878</u>	<u>12,218</u>	12,562	<u>12,935</u>							
Total RBHC	99,579	102,515	105,344	107,477							
GTE Contel	14,373 2,470	15,141 2,591	15,736 2,700	20,227							
Centel	1,503	1,591	1,856	1,597							

Source: Statistics of Communications Common Carriers, Table 1.1

		······································									
REVENUES (in Millions)											
RBHC	1988	1989	1990	<u>1991</u>							
Ameritech	\$9,903	\$10,211	\$10,663	\$10,818							
Bell Atlantic BellSouth	10,880 13,597	•	12,298 14,345	12,280 14,446							
NYNEX Pacific Telesis	12,661 9,483	13,211 9,593	13,585 9,716	13,229 9,895							
Southwestern Bell US West	8,453 9,221	8,730 9,691	9,113 9,957	9,332 10,577							
Total RBHC	\$74,198	\$76,881	\$79,677	\$80,577							
GTE	16,460	17,424	18,374	19,621							
Contel	2,964	3,114	3,423	*							
Centel	1,095	1,188	1,149	1,181							
* Contel merged with (GTE on March	14, 1991.									

Source: Statistics of Communications Common Carriers, Table 1.1

RBHC	1988	<u>1989</u>	<u>1990</u>	<u>1991</u>
Ameritech	\$19,163	\$19,833	\$21,715	\$22,290
Bell Atlantic	24,729	26,220	27,999	27,882
BellSouth	28,472	30,050	30,207	30,942
NYNEX	25,362	25,909	26,651	27,503
Pacific Telesis	21,191	21,194	21,581	21,838
Southwestern Bell	20,985	21,161	22,196	23,179
US West	22,416	25,426	27,050	27,854
Total RBHC	\$162,318	\$169,793	\$177,399	\$181,488
GTE	31,104	31,986	33,769	42,437
Contel	5,865	5,846	7,363	*
Centel	3,753	3,417	3,543	3,492

Source: Statistics of Communications Common Carriers, Table 1.1

RBOC GROSS PLANT IN SERVICE - TOTAL COMPANY (December 31, 1992)

	Support	Assets	C.O. Sv	vitching	C.O. Trai	nsm ission	Termin	ıal Egpt.	Poles &	Conduit	Cable	& Wire	Oth	er	Total Plant
Company	(\$ Mils.)	(% Plant)	(\$ Mils.)	(% Plant)	(\$ Mils.)	(% Plant)	(\$ Mils.)	(% Plant)	(\$ Mils.)	(% Plant)	(\$ Mils.)	(% Plant)	(\$ Mils.)	(% Plant)	(\$ Mils.)
Illinois Bell	1332.3	17%	1948.1	24%	1150.1	14%	305.5	4%	667.1	8%	2541.4	32%	508	1%	7995,2
Indiana Bell	505.9	17%	646.6	22%	435.8	15%	38.7	1%	256.0	9%	1012.1	35%	2.9	0%	2897.9
Michigan Bell	931.0	13%	1521.5	21%	1444.7	20%	67.6	1%	545.6	7%	2765.5	38%	36.9	1%	7312.8
Ohio Bell	902.7	17%	1189.7	22%	896.7	17%	51.1	1%	580.8	11%	1674.3	31%	23.1	0%	5318.3
Wisconsin Bell	508.5	19%	556.0	21%	412.8	16%	26.6	1%	176.5	7%	969.0	36%	78	0%	2657.2
Ameritech	4180.4	16%	5861.8	22%	4340.1	17%	489.4	2%	2225.9	9%	8962.3	34%	121.4	0%	26181.3
Bell of PA	1431.0	17%	1675.4	20%	1473.4	18%	141.9	2%	872.3	11%	2549.1	31%	50.1	1%	8193.1
C&P (D.C.)	410.7	32%	334.6	26%	224.2	17%	31.0	2%	61.1	5%	208.7	16%	16.9	1%	1287.2
C&P Maryland	728.9	15%	1040.3	22%	900.8	19%	76.5	2%	329.4	7%	1622.3	34%	73.7	2%	4772.0
C&P Virginia	517.4	11%	963.6	21%	1013.1	22%	81.7	2%	364.9	8%	1649.1	36%	36.1	1%	4625.8
C&P West Va.	183.8	13%	250.5	18%	266.1	19%	16.0	1%	137.6	10%	564.5	40%	6.8	0%	1425.3
Diamond State	58.0	9%	132.2	21%	127.8	20%	17.5	3%	50.4	8%	237.3	38%	1.2	0%	624.6
New Jersey Bell	1322.5	17%	1583.6	20%	1449.5	18%	145.8	2%	755.9	10%	2478.7	32%	126.0	2%	7861.9
Bell Atlantic	4652.3	16%	5980.2	21%	5454.7	19%	510.4	2%	2571.7	9%	9309.7	32%	310.8	1%	28789.8
BellSouth	5271.1	14%	7109.9	19%	6732.1	18%	611.8	2%	2677.7	7%	15106.7	40%	134.2	0%	37643.6
New England Tel.	1276.4	11%	2423.1	21%	2133.1	19%	827.9	7%	1235.4	11%	3532.2	31%	66.1	1%	11494.2
New York Telephone	2446.9	14%	4743.0	26%	3204.3	18%	403.1	2%	1355.9	7%	5587.0	31%	369.7	2%	18109.9
NYNEX Companies	3723.2	13%	7166.1	24%	5337.4	18%	1231.0	4%	2591.3	9%	9119.2	31%	435.8	1%	29604.1
Pacific Bell	4474.6	19%	5406.2	22%	3807.2	16%	374.9	2%	2516.4	10%	7289.4	30%	249.6	1%	24118.3
Southwestern Bell	4218.6	17%	4856.4	19%	4003.2	16%	504.4	2%	1598.8	6%	9644.6	39%	81.4	0%	24907.4
US WEST	4510.7	17%	5095.8	20%	4834.8	19%	304.4	1%	1473.2	6%	9280.9	36%	297.6	1%	25797.5
Total RBOC	31031.0	16%	41476.4	21%	34509.5	18%	4026.2	2%	15655.0	8%	68713.0	35%	1630.9	1%	197042.0
1991 Total RBOC	30048.6	16%	40277.0	21%	32803.7	17%	6896.7	4%	15034.1	8%	65799.3	34%	1502.4	1%	192361.7
Change	3.3%	0.1%	3.0%	0.1%	5.2%	0.5%	-41.6%	-1.5%	4.1%	0.1%	4.4%	0.7%	8.6%	0.0%	2.4%

Source: Company reports to the Federal Communications Comission

RBOC NET PLANT IN SERVICE - TOTAL COMPANY (December 31, 1992)

			0.0	Caribalkia a	C O T		Т	:154	D-1	A 0 4-4	C-11	- A 335	Total
		ort Assets		Switching		ansmission		inal Eqpt.		& Conduit		e & Wire	Net Plant
Company	(\$ Mils.)	(% Plant)	(\$ Mils.)	(% Plant)	(\$ Mils.)	(% Plant)	(\$ Mils.)	(% Plant)	(\$ Mils.)	(% Plant)	(\$ Mils.)	(% Plant)	(\$ Mils.)
Illinois Bell	863.6	18%	1154.3	24%	682.8	14%	116.6	2%	457.4	10%	1505.8	31%	4805.1
Indiana Bell	298.6	18%	410.6	24%	204.5	12%	12.6	1%	164.1	10%	589.0	35%	1679.4
Michigan Bell	626.2	15%	922.0	21%	798.4	19%	26.6	1%	369.1	9%	15544	36%	4315.1
Ohio Bell	609.5	19%	765.3	24%	476.7	15%	17.0	1%	352.6	11%	914.1	29%	3142.7
Wisconsin Bell	335.0	21%	328.9	21%	234.6	15%	12.7	1%	101.1	6%	562.6	36%	1577.0
Ameritech	2732.9	18%	3581.2	23%	2397.1	15%	185.6	1%	1444.2	9%	5126.0	33%	15519.3
Bell of PA	955.3	18%	1137.7	21%	901.9	17%	93.2	2%	607.2	11%	1628.7	30%	5353.4
C&P (D.C.)	270.5	35%	202.0	26%	144.0	19%	14.6	2%	34.0	4%	97.9	13%	767.5
C&P Maryland	505.8	16%	746.1	24%	575.8	19%	33.6	1%	247.6	8%	947.9	31%	3096.5
C&P Virginia	364.6	12%	672.3	22%	642.5	21%	48.3	2%	276.4	9%	1062.8	35%	3080.2
C&P West Va.	126.0	14%	200.1	23%	161.4	18%	10.3	1%	81.4	9%	303.6	34%	884.8
Diamond State	41.2	10%	87.3	22%	78.7	20%	11.8	3%	35.7	9%	146.2	36%	401.2
New Jersey Bell	833.5	17%	1041.9	21%	834.8	17%	94.5	2%	509.4	10%	1511.9	31%	4886.3
Bell Atlantic	3096.9	17%	4087.3	22%	3339.1	18%	306.2	2%	1791.7	10%	5699.0	31%	18469.9
BellSouth	3405.8	15%	4674.8	21%	3914.9	17%	198.3	1%	1933.3	9%	8286.4	37%	22478.8
New England Tel.	770.1	12%	1529.5	24%	1107.7	18%	68.9	1%	813.4	13%	1997.2	32%	6312.1
New York Telephone	1558.3	15%	2852.2	27%	1690.4	16%	139.9	1%	870.1	8%	3111.7	30%	10462.4
NYNEX Companies	2328.3	14%	4381.6	26%	2798.1	17%	208.8	1%	1683.5	10%	5108.9	30%	16774.5
Pacific Bell	2940.2	21%	3291.5	23%	1804.9	13%	126.7	1%	1681.6	12%	4172.3	29%	14147.3
Southwestern Bell	2817.5	19%	3027.2	21%	2319.7	16%	203.1	1%	1087.7	7%	5284.7	36%	14758.9
US WEST	3160.1	19%	3289.2	20%	2882.6	18%	140.3	1%	977.5	6%	5599.5	34%	16258.4
Total RBOC	20481.7	17%	26332.9	22%	19456.3	16%	1369.0	1%	10599.5	9%	39276.9	33%	118407.1
1991 Total RBOC	19862.9	17%	26228.8	22%	19646.4	17%	1320.7	1%	10334.8	9%	38961.9	33%	117290.7
Change	3.1%	0.4%	0.4%	-0.1%	-1.0%	-0.3%	3.7%	0.0%	2.6%	0.1%	0.8%	0.0%	1.0%

Source: Company reports to the Federal Communications Comission

ECONOMICS AND TECHNOLOGY, INC.

RBOC SUMMARY OF SELECTED ARMIS DATA (1991)

Сотрапу	Total Switching Entities	Local Switches	Total Tandems	Total Access Lines	Total Lines Electronic	Percent Lines Electronic	Total Digital Lines	Percent Lines Digital
Ameritech	1,438	1,421	49	16,634	16,568	99.6%	7,492	45.0%
Bell Atlantic	1,414	1,404	43	17,750	17,750	100.0%	9,776	55.1%
BellSouth	1,680	1,666	62	17,970	17,971	100.0%	10,245	57.0%
NYNEX	1,336	1,316	29	15,409	14,962	97.1%	9,372	60.8%
Pacific Telesis	862	842	20	14,381	14,380	100.0%	5,823	40.5%
Southwestern Bell	1,380	1,356	48	12,357	11,671	94.4%	3,967	32.1%
US West	1,847	1,824	53	12,886	12,209	94.7%	5,386	41.8%
RBOC TOTAL	9,957	9,829	304	107,387	105,511	98.3%	52,061	48.5%

Source:

FCC Report 43-07 (ARMIS Infrastructure Report), 1991.

Appendix 7b LEC PRICING FLEXIBILITY PLANS